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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,198	10/26/2001	Ronald E. Gilbert	PY2-023	4193

21567 7590 05/07/2003

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EXAMINER

NGUYEN, NINH H

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 05/07/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/047,198

Applicant(s)

GILBERT ET AL.

Examiner

Ninh H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because Fig. 7 is missing. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

1. Claim 3 is objected to because of the following informalities: on line 18, after “predetermined”, “partial” should be replaced by --particle--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Cooper (5,944,496).

Cooper discloses a molten metal pump system (Figs. 1, 6-9, 14) comprising a pump framework (Fig. 1), a pump motor 28 mounted on the pump framework, a pump base 50 attached to the pump framework, the pump base including an impeller aperture (Fig. 1) with interior walls, an impeller shaft 40 attached to the pump motor, an impeller body (Fig. 9c) attached to the

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impeller shaft and at least partially within the impeller aperture in the pump base, the impeller body comprising a center portion with a shaft aperture therein (see Fig. 9c), a plurality of vanes extending outward from the center portion, each vane including a radially inward end, a radially outward end, an input side, an output side, a leading surface, a trailing surface, a vane width between the leading surface and the trailing surface, the plurality of vanes being tapered at the input side from the radially inward end to the radially outward end, thereby creating a shoulder on the radially outward end of the plurality of vanes, an wherein a predetermined particle relief passageway (shown at 56 in Fig. 1 and 7) is defined between the radially outward end of the plurality of vanes on the impeller and the interior walls of the impeller aperture, the particle relief passageway being a predetermined size to allow particles of a predetermined size to pass between the plurality of vanes and the interior walls of the impeller aperture of the pump base; wherein the impeller body is wholly within the impeller aperture in the pump base (col. 5, lines 49-51).

Regarding claim 3, Cooper disclose a predetermined particle relief passageway is defined between the plurality of vanes on the impeller (Fig. 9c), the predetermined particle relief passageway being sized to allow particle of a predetermined size to pass between the plurality of vanes and the interior walls of the impeller aperture of the pump base.

Prior Art

The prior art made of record but not relied upon is considered pertinent to applicant's disclosure and consists of 1 patent.

Thut (5,842,832) is cited to show a molten metal pump system.

Information Disclosure Statement (IDS)

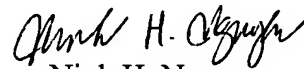
4. This Office Action is generated without the benefit of the IDS submitted on 10/26/01 because the PTO form 1449 was not matched to the file at the time the Office Action is prepared. To further advancing of the prosecution the application, Applicant is asked to resubmit a copy of the PTO form 1449, with or without copy of the cited references, with the reply to this Office Action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ninh Nguyen whose telephone number is (703) 305-0061. The examiner can be normally reached on Monday-Friday from 8:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (703) 308-1044. The fax number for this group is (703) 872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.


Ninh H. Nguyen
Patent Examiner

Nhn
May 2, 2003